

REMARKS

Reconsideration of the application in light of the amendments and the following remarks is respectfully requested.

Status of the Claims

Claims 1-5 are pending. Claims 1, 3, and 5 have been amended. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 101

Claims 1-5 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 1, 3 and 5

With respect to claims 1, 3 and 5, the Examiner contends that the outputs of claims 1, 3 and 5 do not amount to a "useful, concrete and tangible result." (Detailed Action, item 3, page 3.) Specifically, the Examiner notes that the claims are directed to measuring the similarity between protein profile matrices to predict a protein three-dimensional structure, yet the output of each claim is a score matrix. (Detailed Action, item 3, page 3.)

In response to the Examiner's rejection, Applicant has amended claims 1, 3 and 5 to recite that at least one candidate for the predicted protein three-dimensional structure is output based on the results of the score matrix. Support for this amendment can be found in the Specification at page 21, lines 24-34. Applicant submits that claims 1, 3, and 5, as amended output a useful, concrete, and tangible result.

Claims 1 and 2

With respect to claims 1 and 2, the Examiner contends that “the means” recited therein “corresponds to computer software such as dynamic programming noted in page 5 of the instant specification,” and are therefore treated as method claims. (Detailed Action, item 3, page 3.) The Examiner further contends that the claims lack a physical transformation, or a useful, concrete and tangible result. (Detailed Action, item 3, page 3.)

In response to the Examiner’s rejection, Applicant has amended claim 1 to clarify that the claimed computer readable medium is encoded with data structures and a computer program which define structural and functional interrelationships between the data structure and the computer program and hardware which permit the computer program’s functionality to be realized, and is thus statutory. (*See* MPEP 8th Ed. Rev. 5, § 2106.01(I).) Specifically, claim 1 has been amended to recite that the “means” of the “computer based system . . . stored in a computer readable medium” read and write data to and from the computer readable medium in order to realize its functionality. Thus, claim 1 defines structural and functional interrelationships which permit the computer system’s functionality to be realized.

Applicant respectfully requests reconsideration and withdrawal of this rejection.

CONCLUSION

Each and every point raised in the Office Action dated January 26, 2007 has been addressed on the basis of the above amendments and remarks. In view of the foregoing it is believed that claims 1-5 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Dated: March 22, 2007

Respectfully submitted,

By 

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